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BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF INVESTIGATION INTO U S WEST COMMUNICATIONS, INC.'S COMPLIANCE WITH CERTAIN WHOLESALE PRICING REQUIREMENTS FOR UNBUNDLED NETWORK ELEMENTS AND RESALE DISCOUNTS	)))))))	**DOCKET NO. T-00000A-00-0194**

DIRECT TESTIMONY OF

DOUGLAS DENNEY

ON BEHALF OF

AT&T COMMUNICATIONS

OF THE MOUNTAIN STATES, INC.

APRIL 24, 2000

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Douglas Denney. I work at 1875 Lawrence Street, Denver, Colorado.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am an economist for AT&T in its Local Services and Access Management Organization.

Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL BACKGROUND.

A. I received a B.S. degree in Business Management in 1988. I spent three years doing graduate work at the University of Arizona in Economics, and then I transferred to Oregon State University where I have completed all the requirements for a Ph.D. except my dissertation. My field of study was Industrial Organization, and I focused on cost models and the measurement of market power. I taught a variety of courses at the University of Arizona and Oregon State University. I was hired by AT&T in December of 1996 and have spent most of my time with the Company analyzing cost models.

I have testified before numerous Commissions in U S WEST's 14-state territory on cost models (including the HAI Model, BCPM, U S WEST's UNE cost models, and the FCC's Synthesis Model) and issues relating to cost models.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of this testimony is to present to the Commission a rational methodology for determining the deaveraged unbundled loop rate for U S WEST in Arizona.

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. The FCC has mandated that states deaverage Unbundled Network Element ("UNE") prices into at least three cost-based zones by May 1, 2000. This Commission can simply and quickly complete this task based on the work it has previously done in the arbitration proceeding between U S WEST and AT&T. The Commission has already determined statewide average UNE prices for U S WEST in Arizona. The next step is to create deaveraged rates based on wire center cost differences that exist throughout U S WEST's serving area in the state.

This Commission need only deaverage the unbundled loop rate at this time. This is the most significant cost that Competitive Local Exchange Carriers ("CLECs") face and it has the greatest variability on a geographic basis.

The Commission is required by the Federal Communications Commission ("FCC") to establish a minimum of three cost-based zones. These zones should be determined by grouping together wire centers with similar costs.

In selecting a methodology for deaveraging, the Commission should be mindful of the costs that complicated methodologies could impose on both CLECs and

incumbent local exchange carriers ("ILECs"). The Commission should select a methodology that is simple and does not impose unnecessary implementation costs.

II. DEAVERAGED UNES

Q. WHY SHOULD THE COMMISSION ESTABLISH GEOGRAPHICALLY DEAVERAGED UNBUNDLED NETWORK ELEMENTS?

A. UNE prices that most closely reflect their underlying cost will best facilitate efficient competition by sending the appropriate signals to the marketplace and allow competitors to make economically efficient decisions on where and how to compete.

UNE prices that are set below cost could create uneconomic incentives for competitors to purchase UNEs rather than deploying their own network, even where the competitor is the low-cost producer. UNE prices that are set above cost could create uneconomic incentives for competitors to build facilities, even if the competitor is not the most efficient provider. In addition, since significant sunk costs exist for a competitor attempting to provide service over its own facilities, UNE prices that are set above costs can also severely limit entry into a market.

UNE prices should also be deaveraged because it is the law. The Telecommunications Act of 1996 requires that charges for UNEs should be based

on the cost of providing that UNE, without reference to rate-of-return.[1] Since the cost of some UNEs varies significantly in different geographic areas of the state, FCC rules implementing the Act require that states establish at least three cost-related zones.[2]

Q. WHAT QUESTIONS DOES THE COMMISSION NEED TO CONSIDER WHEN BEGINNING THE PROCESS OF DETERMINING GEOGRAPHIC DEAVERAGED UNE RATES IN ARIZONA?

A. Before deaveraging the Commission needs to answer three questions: 1) What UNEs warrant deaveraging; 2) How many deaveraged "zones" should be created; and 3) How should the zones be defined? I will address each of these questions below.

Q. WHAT UNES WARRANT DEAVERAGING?

A. The unbundled loop is the most important element to deaverage. The unbundled loop makes up approximately 75% of the total cost a CLEC will face when offering telephone service through unbundled network elements. The fundamental purpose behind deaveraging of UNEs is to facilitate competition. Unbundled network element prices that represent underlying cost send the appropriate signals to new entrants to help them determine whether it is more

[1] 47 U.S.C., sec. 101, § 252(d)(1)(A)(i).
[2] 47 C.F.R. § 51.507(f)

efficient to lease the existing ILEC's network or build their own facilities.[3] The determination of whether a UNE should be deaveraged should be based on (a) the existence of significant cost differences in providing the UNEs in different geographic areas; and (b) the ability to appropriately distinguish these cost differences.

Obviously, it does not make sense to deaverage rates on an interim basis where significant cost differences do not exist. For example, the highest cost wire center loop price in Arizona is approximately 30 times the lowest cost wire center price. This ratio for the switch port is three times. In addition, the average loop cost is $21.98, and the average switch port cost is only $1.61. The benefits of deaveraging the switch port and other non-loop elements are minimal, and the cost to ILECs and CLECs of maintaining distinct rates in distinct areas would likely outweigh any benefit of deaveraging on an interim basis.

Additionally, if cost model methodologies do not appropriately assign cost to different geographic areas, then the implementation of deaveraging becomes nearly impossible. For example, the cost of a point-to-point interoffice connection can easily be allocated to the individual wire centers at each end, but it

[3] Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, First Report and Order, 11 FCC Rcd 15499, ¶ 758 (1996) ("Local Competition Order") ("deaveraged rates more closely reflect the actual costs of providing ... unbundled network elements.")

is much more difficult to accurately allocate the cost of these facilities to areas within a wire center.[4]

At this time, only the unbundled loop has all of the following characteristics: it is the most significant cost in providing local service; it has a high degree of cost variability between geographic zones; and the cost is easily assigned to individual customers (thus zones) through the use of a cost proxy model. Thus, the unbundled loop is the only element that must necessarily be deaveraged at this time.[5]

Q. HOW MANY DEAVERAGED "ZONES" SHOULD BE CREATED?

A. AT&T recommends that the Commission establish five geographically deaveraged zones, at this time. The FCC has mandated that states create **at least** three deaveraged zones on or before May 1, 2000. However, the CLECs in Washington recommended five zones. This was acceptable to AT&T. The greater the number of zones, the more accurate the market signal observed by CLECs. However, the number of zones adopted should be tempered by

[4] Although total cost can be determined with a high degree of certainty, the appropriate allocation of cost can also be an issue with host/remote switching cost (to appropriate offices), interoffice SONET ring cost (to appropriate offices), feeder cost (to appropriate clusters), and distribution cost (to appropriate households). The greater the level of aggregation of cost, the greater degree of certainty of the estimates. However, as is discussed below, the loop cost can be appropriately assigned to wire centers. This is one reason why AT&T recommends calculating cost at the wire center level and aggregating wire centers with similar cost into zones.

[5] As competition develops and cost models increase in precision, additional elements may need to be deaveraged. However, it is the opinion of AT&T that deaveraging the unbundled loop will capture significant cost differences between customers and will satisfy the FCC's requirement to deaverage.

practicality, implementation and the current state of competition in Arizona. It would be burdensome to the Commission, ILECs and CLECs to have to track the prices in 20 zones if UNE purchases are only occurring in two zones.

While it is feasible to deaverage to virtually any conceivable level, given the state of competition in Arizona, the inability to foresee the precise shape of competition in the near future, and the infancy of the deaveraging process at this time, five deaveraged zones is a practical place for this Commission to start. The Commission should consider revisiting the state of deaveraging and the need for further deaveraging on a periodic basis.

Q. HOW SHOULD ZONES BE DEFINED?

A. While there are a variety of different methodologies for defining zones for deaveraging, the most practical way to deaverage is to combine areas with similar costs into zones. The best way to do this is to group wire centers with similar costs into five cost-based zones.[6] Other methods that could be used are: density zones, distance from the wire center (known as a doughnut approach)[7], central

[6] As competition develops, further deaveraging will inevitably be necessary. The state and type of competition will help the Commission determine future methods of deaveraging.

[7] The doughnut approach draws a circle around each wire center and creates two zones in each wire center, an "in-town" zone and an "out-of-town" zone.

office size, and communities of interest.[8] However, these other methods present implementation concerns, and they do not depict costs in the most accurate way.

When establishing zones it is important to keep in mind the purpose of deaveraging. The purpose is to facilitate efficient competition by allowing the prices of unbundled network elements to more closely represent their underlying cost. Accurately priced UNEs will allow CLECs to make economical and efficient decisions on where to purchase UNEs and where to build.

Thus, the decision on how to group customers into zones should be made based on cost differences between customers, rather than some proxy representing cost differences, such as density, doughnuts, or switch size.

Another important issue is the ease of identifying customers with zones. For example, suppose a CLEC wishes to make a bid to provide local service to a business operating throughout the state of Arizona, such as a gas station or a restaurant chain. If the CLEC cannot easily determine in which zone the business is located, or if the CLEC has to pay an OSS records look-up charge to the ILEC to determine the zone of this customer, the CLEC will face an unnecessary expense to compete. Deaveraging on a wire center basis would alleviate this concern.

[8] The communities of interest approach groups areas (clusters or wire centers) that are relatively near to each other into the same zone. Though the communities of interest approach typically creates urban, suburban and rural communities, it is technically not a cost-based approach.

Since the loop is the most important element to be deaveraged and each loop is uniquely assigned to a wire center, the wire center is the most practical and simple method of identifying customers. Thus, utilizing zones based on cost differences between wire centers is the most appropriate method to begin the deaveraging process.

Q. DOES THE COMMISSION NEED TO DEAVERAGE COSTS BELOW THE WIRE CENTER LEVEL AT THIS TIME?

A. No. Certainly loop costs vary within a wire center. However a number of factors suggest that the wire center is the appropriate place to start the deaveraging process at this time. 1) This is the beginning of the deaveraging process. The Commission should regularly review UNE deaveraging and its impacts on the state of competition in the state. An appropriate first step in the deaveraging process is to begin with a simple and clear method and define zones based on existing wire center boundaries. 2) CLECs can easily identify potential customers with wire centers through the customer's NPA-NXX. This will allow the CLEC to easily consider business plans, identify UNE rates for customers, and make efficient entry decisions. If customers are assigned to zones below the wire center level of aggregation, a simple, low-cost method must exist for CLECs to determine in which zone customers belong. No simple, low-cost system exists today. 3) Actual line counts for the U S WEST territory by wire center are publicly available and can be used to precisely calculate the cost of each wire

center.[9] Precise line counts at the sub-wire center level are not available. 4) Some parts of the loop are shared between customers in different areas of the wire center, such as feeder cable. When deaveraging below the wire center it is important that loop elements shared between different areas in the wire center, are appropriately allocated to each area. A misallocation (though correct calculation) of feeder cost would distort deaveraged prices in a doughnut zone approach and thus could have unintended consequences on competition. Since no part of the loop is shared between wire centers, the wire center is an ideal level at which to calculate loop costs for the purposes of creating cost-based zones.

Q. WHAT IS WRONG WITH GROUPING WIRE CENTERS BY DENSITY, SWITCH SIZE, OR COMMUNITIES OF INTEREST?

A. The purpose of deaveraging UNEs is to ensure that UNEs more closely reflect their underlying cost. Density and switch size are simply proxies for cost. Since actual forward-looking cost can be calculated for each wire center, cost proxies are unnecessary. In fact, any grouping of wire centers into zones using a means other than cost will distort deaveraged prices and potentially could have adverse affects on competition.

For example, the communities of interest method groups wire centers that are close together into zones. This has the effect of putting some high-cost wire

[9] In order to maintain the current ordered state-wide average loop rate of $21.98, a factor was applied to the wire center cost estimates. The factor for Arizona was 1.79.

centers in low-cost zones and low-cost wire centers in the high-cost zones. This methodology distorts costs and gives parties (both ILECs and CLECs) incentives to manipulate the assignment of wire centers for their respective company's advantage. As an example, placing a low-cost wire center in with a high-cost "community of interest" will, in effect, raise the unbundled loop cost for that low-cost wire center and potentially protect that wire center from the threat of competition. Another distortion that happens with community-of-interest assignments is that the differences between the deaveraged zones become smaller, thus lessening the competitive benefits of prices that are aligned with their underlying cost.

Q. WHAT ARE THE MECHANICS BEHIND CALCULATING THE DEAVERAGED UNBUNDLED LOOP COST?

A. First, the Commission should determine the unbundled loop cost by wire center. I have relied on the HAI Model, version 5.0a, to determine relative costs by wire center.[10] This is a later version of the model relied upon by Arizona to establish

[10] I made two changes to the HAI Model, version 5.0a. 1) I adjusted the line counts in the model to utilize U S WEST's publicly available actual wire center line counts as they provided to the FCC in a data response. The use of actual line counts should allow for the most accurate calculation of relative differences in costs between wire centers. 2) I used an Arizona specific labor factor in the model. I did not make other changes to the model, as were made to HM 2.2.2 in order to determine statewide average costs. I did not make the changes because: 1) results from HAI were multiplied by a factor of 1.79 in order to match the ordered loop rate; 2) these changes tend to effect the overall costs in the model, not the relative costs between wire centers and thus it is not necessary to make these adjustments since a factor was used to match statewide average costs; 3) the most significant cost driver changed by the Commission in HM 2.2.2, the cable sheath mileage factor, is not used in the HAI Model due to changes in the way loop plant is calculated in the newer cost proxy models.

the interim loop rate of $21.98. Although the model results in an average loop cost less than the Commission's ordered average loop price of $21.98, I have imposed an upward scaling factor on the results from the cost model to maintain the Commission's statewide average rate.

Second, this data should be sorted by cost so that wire centers can be grouped according to similarities in cost into wire center cost-based zones.

Attachment A provides scaled loop cost estimates by wire center for U S WEST using the HAI Model, version 5.0a.

Third, wire centers with similar costs should be grouped into zones. In order to group wire centers into five cost-based zones, I grouped all wire centers between $10 and $15 into zone 1, $15 and $20 in zone 2, $20 and $25 in zone 3, $25 and $30 in zone 4, and all wire center loop costs over $30 in zone 5.

The results are summarized in the table below:

Loop Cost by Zone **Arizona – U S WEST**		
Zone	**HM 5.0a (scaled) Monthly Loop Cost**	**Percent of Lines in Each Zone**
1	$12.75	12.0%
2	$17.05	58.1%
3	$21.98	9.7%
4	$27.40	9.4%
5	$53.94	10.8%
Average	$21.98	100.0%

Q. IF THE COMMISSION DETERMINED THAT IT ONLY WANTED TO CREATE THREE COST-BASED DEAVERAGED ZONES, WHAT WOULD YOU RECOMMEND?

A. I would recommend an approach similar to the five-zone approach presented above, but with the third zone containing all wire centers with loop costs above $20.00. The results of this zone designation are presented below:

Loop Cost by Zone Arizona – U S WEST		
Zone	**HM 5.0a (scaled) Monthly Loop Cost**	**Percent of Lines in Each Zone**
1	$12.75	12.0%
2	$17.05	58.1%
3	$35.23	30.0%
Average	$ 21.98	100.0%

Q. HOW DOES THE AT&T DEAVERAGING PROPOSAL COMPARE TO PROPOSALS U S WEST HAS PUT FORTH IN OTHER STATES?

A. In other states U S WEST has agreed that the loop is the most important element that should be deaveraged and that wire centers should be basis over which cost is calculated. U S WEST has suggested three or four zones but disagrees with the CLECs on how these zones should be created. U S WEST's proposals create zones, not based on cost differences between wire centers, but based on geographic proximity of the wire centers to be deaveraged. Thus, U S WEST

tends to group low- and high-cost wire centers together in each deaveraged zone. The result are deaveraged prices that do not properly reflect cost differences that exist within the state. U S WEST's proposals exhibit less deaveraging than what has been proposed by AT&T and CLECs in other jurisdictions.

In addition, U S WEST has attempted to link its deaveraging proposal to the current state of retail rates. Retail rates should not determine wholesale prices; in fact, in a competitive market place the pressure works in precisely the opposite direction.

The purpose of deaveraging wholesale rates is to facilitate efficient competition by allowing the prices of unbundled network elements to more closely represent their underlying cost. Accurately priced UNEs will allow CLECs to make economical and efficient decisions on where to purchase UNEs and where to build. Prices that are not based on cost will send the wrong signals to the market and may encourage inefficient entry, or discourage entry by an efficient competitor.

Q. WHAT CRITICISMS DOES U S WEST MAKE OF AT&T'S DEAVERAGING METHODOLOGY?

A. U S WEST has two general criticisms of AT&T's methodology. The first is that

the break points between zones are arbitrary and the second is that the cost differences exhibited by the HAI Model between high- and low-cost areas are not reasonable. Both of these criticisms are invalid.

Zone Break Points

U S WEST claims that breakdown between zones is arbitrary and can be manipulated by CLECs. U S WEST makes this claim because the cutoff between zones can be changed. For example: the cutoff between zone 1 and 2 could be changed from $15.00 to $14.50. This would change the wire centers assigned to zones 1 and 2 and thus the cost of zone 1 and 2. However, the cost-based methodology dictates that similar cost wire centers must be grouped together. Changing the cutoff does not change the fact that wire centers with similar costs must be grouped together. The AT&T methodology prohibits the manipulation of zones which takes place in U S WEST's community of interest approach. Under the community of interest approach, zones can be manipulated by conveniently defining community in order to arrange specific wire centers in a manner that best suits parties' needs. U S WEST prefers that cost exhibit as little deaveraging as possible, and thus, they interpret communities broadly, to include both low- and high-cost wire centers. The aggregation of wire centers into zones according to costs allows parties to use objective demarcations between zones, such as $5.00

increments, equal percent of customers in each zone, or natural breaks in cost between wire centers.[11]

HAI Cost Differences between wire centers

U S WEST's proposed deaveraged loop rates typically vary very little between zones. In some states U S WEST has used various versions of its RLCAP model to justify the low variance in costs between high- and low-cost wire centers. Based on RLCAP, U S WEST has criticized the degree to which high- and low-cost wire centers vary that are produced by the HAI Model. U S WEST criticisms are self-serving. In universal service fund ("USF") dockets, U S WEST prefers that costs vary greatly between low- and high-cost areas in order to maximize its claim on Universal Service needs. To accomplish this goal, in USF dockets U S WEST utilizes the BCPM model rather than its own RLCAP model. In many cases BCPM costs show greater variances between wire centers than HAI costs. In contrast, in UNE dockets it is in U S WEST's interest to demonstrate that costs vary slightly. In these cases, U S WEST utilizes a version of RLCAP, or the current retail rate structure. While there are some differences in calculating USF costs and UNE costs, both set of cost estimates utilize estimates of loop investment. U S WEST cannot have it both ways. The loop plant necessary to

[11] Natural breaks in wire center costs are not readily apparent in the Arizona cost data. Deaveraged loop costs resulting from placing an equal percent of customers in each zone for the five-zone approach are: $13.51, $16.02, $17.50, $20.42 and $41.58; for the three-zone approach, UNE costs are: $14.58, $17.52, $33.11.

meet universal service obligations can't vary across the state to a greater degree than the loop plant necessary to provide unbundled UNEs.

III. CONCLUSION

Q. WHAT CONCLUSIONS CAN BE DRAWN FROM YOUR TESTIMONY?

A. The most important network element to deaverage is the unbundled loop. The unbundled loop is a significant portion of a CLEC's basic service cost, and unbundled loop cost estimates vary significantly throughout the state of Arizona.

Pursuant to Federal law, the Commission must create at least three deaveraged zones. The most reasonable method for creating these zones is to calculate the loop cost for each wire center and to group wire centers with similar cost together in a zone.

Methodologies other than grouping similar cost areas together distort UNE prices and diminish the benefits that can be derived from deaveraging.

AT&T recommends the use of the deaveraged loop rates and zones identified in Attachment A to this testimony as determined by the HAI Model, scaled to maintain the statewide average rate in Arizona of $21.98 (Zone 1: $12.75, Zone 2: $17.05, Zone 3: $21.98, Zone 4: $27.40 and Zone 5: $53.94).

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes.

Arizona -- HAI Model Scaled Cost Estimates

For Sale (=1)	Wire Center	CLLI	Total Lines	Scaled Loop Cost	Percent Change in WC Cost	Cumulative Percent of Total Lines	Zone
0	PHOENIX MAIN	PHNXAZMA	92,248	$ 11.26		3.2%	1
0	PHOENIX NORTH	PHNXAZNO	113,451	$ 11.88	5.5%	7.1%	1
0	PHOENIX EAST	PHNXAZEA	40,170	$ 13.71	15.4%	8.5%	1
0	PHOENIX SOUTHEAST	PHNXAZSE	25,508	$ 14.31	4.4%	9.3%	1
0	PHOENIX NORTHEAST	PHNXAZNE	76,469	$ 14.78	3.3%	12.0%	1
0	TEMPE	TEMPAZMA	74,733	$ 15.05	1.8%	14.5%	2
0	TUCSON MAIN	TCSNAZMA	82,933	$ 15.35	2.0%	17.4%	2
0	SCOTTSDALE MAIN	SCDLAZMA	77,817	$ 15.46	0.7%	20.1%	2
0	PHOENIX NORTHWEST	PHNXAZNW	59,263	$ 15.51	0.3%	22.1%	2
0	SUNNYSLOPE	PHNXAZSY	62,045	$ 15.59	0.5%	24.3%	2
0	PHOENIX WEST	PHNXAZWE	44,135	$ 15.98	2.5%	25.8%	2
0	MESA	MESAAZMA	106,484	$ 16.10	0.8%	29.4%	2
0	FLOWING WELLS	TCSNAZFW	35,723	$ 16.19	0.6%	30.7%	2
0	CRAYCROFT	TCSNAZCR	41,635	$ 16.25	0.4%	32.1%	2
0	TUCSON EAST	TCSNAZEA	65,506	$ 16.38	0.8%	34.4%	2
0	GLENDALE	GLDLAZMA	56,304	$ 16.43	0.3%	36.3%	2
0	GILBERT	MESAAZGI	61,575	$ 16.54	0.7%	38.4%	2
0	MCCLINTOCK	TEMPAZMC	85,839	$ 16.60	0.4%	41.4%	2
0	MARYVALE	PHNXAZMY	39,752	$ 16.90	1.8%	42.7%	2
0	CHANDLER WEST	CHNDAZWE	40,682	$ 17.18	1.7%	44.1%	2
0	PEORIA	PHNXAZPR	41,770	$ 17.45	1.6%	45.6%	2
0	THUNDERBIRD	SCDLAZTH	82,981	$ 17.65	1.1%	48.4%	2
0	GREENWAY	PHNXAZGR	96,619	$ 17.66	0.0%	51.8%	2
0	SUPER WEST	SPRSAZWE	85,511	$ 17.70	0.2%	54.7%	2
0	CACTUS	PHNXAZCA	94,096	$ 18.06	2.1%	57.9%	2
1	YUMA MAIN	YUMAAZMA	31,466	$ 18.15	0.5%	59.0%	2
0	MID RIVERS	PHNXAZMR	53,470	$ 18.17	0.1%	60.9%	2
0	PECOS	PHNXAZPP	16,078	$ 18.35	1.0%	61.4%	2
0	SHEA	SCDLAZSH	41,784	$ 18.63	1.5%	62.9%	2
0	TUCSON SOUTH	TCSNAZSO	38,968	$ 18.97	1.8%	64.2%	2
0	SUPER MAIN	SPRSAZMA	33,033	$ 19.12	0.8%	65.3%	2
0	CHANDLER MAIN	CHNDAZMA	65,456	$ 19.47	1.8%	67.6%	2
0	RINCON	TCSNAZRN	71,111	$ 19.76	1.5%	70.0%	2
0	DEER VALLEY NORTH	DRVYAZNO	43,224	$ 20.05	1.5%	71.5%	3
0	FT MCDOWELL	FTMDAZMA	14,578	$ 20.46	2.0%	72.0%	3
0	SIERRA VISTA MAIN	SRVSAZMA	22,286	$ 20.86	1.9%	72.8%	3
0	CATALINA	TCSNAZCA	28,054	$ 21.01	0.7%	73.8%	3
0	PRESCOTT EAST	PRSCAZEA	15,137	$ 21.45	2.1%	74.3%	3
0	CHANDLER SOUTH	CHNDAZSO	13,358	$ 22.12	3.1%	74.7%	3
0	PHOENIX SOUTH	PHNXAZSO	28,936	$ 22.35	1.0%	75.7%	3
0	SUNRISE	AGFIAZSR	25,979	$ 22.56	1.0%	76.6%	3

0	BEARDSLEY	BRDSAZMA	29,918	$ 23.39	3.7%	77.7%	3
0	TUCSON NORTH	TCSNAZNO	45,835	$ 23.51	0.5%	79.2%	3
0	BETHANY WEST	PHNXAZBW	14,769	$ 23.63	0.5%	79.7%	3
0	CORTARO	TCSNAZCO	16,862	$ 25.36	7.3%	80.3%	4
0	TOLLESON	TLSNAZMA	10,160	$ 25.44	0.3%	80.7%	4
0	SUPER EAST	SPRSAZEA	26,715	$ 25.54	0.4%	81.6%	4
0	FLAGSTAFF MAIN	FLGSAZMA	28,213	$ 25.61	0.3%	82.6%	4
0	COLDWATER	GDYRAZCW	9,272	$ 26.42	3.2%	82.9%	4
0	PRESCOTT MAIN	PRSCAZMA	36,751	$ 26.63	0.8%	84.1%	4
1	FORTUNA	YUMAAZFT	12,001	$ 26.71	0.3%	84.6%	4
0	CASA GRANDE	CSGRAZMA	16,445	$ 27.58	3.2%	85.1%	4
0	COTTONWOOD SOUTH	CTWDAZSO	2,832	$ 27.71	0.5%	85.2%	4
1	DOUGLAS	DGLSAZMA	8,173	$ 28.38	2.4%	85.5%	4
0	NOGALES MAIN	NGLSAZMA	6,737	$ 28.59	0.7%	85.7%	4
0	CORONADO	CRNDAZMA	9,585	$ 28.62	0.1%	86.1%	4
1	YUMA SOUTHEAST	YUMAAZSE	23,383	$ 28.64	0.1%	86.9%	4
0	SEDONA SOUTH	SEDNAZSO	4,481	$ 29.10	1.6%	87.0%	4
0	PINNACLE PEAK	PRVYAZPP	34,461	$ 29.21	0.4%	88.2%	4
0	FLAGSTAFF SOUTH	FLGSAZSO	2,577	$ 29.31	0.4%	88.3%	4
0	FOOTHILLS	PHNXAZ81	7,656	$ 29.78	1.6%	88.6%	4
0	LITCHFIELD PARK	LTPKAZMA	12,677	$ 29.93	0.5%	89.0%	4
1	PAGE	PAGEAZMA	5,133	$ 29.97	0.1%	89.2%	4
0	PAYSON	PYSNAZMA	12,290	$ 30.70	2.5%	89.6%	5
0	COTTONWOOD MAIN	CTWDAZMA	12,838	$ 33.29	8.4%	90.0%	5
0	SEDONA MAIN	SEDNAZMA	12,479	$ 33.54	0.8%	90.5%	5
0	SAN MANUEL	SNMNAZMA	2,075	$ 34.31	2.3%	90.5%	5
0	TANQUE VERDE	TCSNAZTV	11,474	$ 34.98	1.9%	90.9%	5
1	SAFFORD	SFFRAZMA	11,100	$ 35.13	0.4%	91.3%	5
0	FLAGSTAFF EAST	FLGSAZEA	15,892	$ 35.17	0.1%	91.9%	5
0	GREEN VALLEY	GNVYAZMA	17,803	$ 35.71	1.5%	92.5%	5
1	GLOBE	GLOBAZMA	8,348	$ 35.87	0.4%	92.8%	5
0	NOGALES MIDWAY	NGLSAZMW	10,728	$ 36.39	1.5%	93.1%	5
0	CAVE CREEK	CVCKAZMA	14,384	$ 36.80	1.1%	93.6%	5
0	LAVEEN	PHNXAZLV	2,641	$ 37.88	2.9%	93.7%	5
0	MUNDS PARK	MSPKAZMA	2,567	$ 37.97	0.2%	93.8%	5
0	TUCSON SOUTHWEST	TCSNAZSW	18,170	$ 38.57	1.6%	94.4%	5
0	COOLIDGE	CLDGAZMA	5,145	$ 38.59	0.1%	94.6%	5
0	TUCSON SOUTHEAST	TCSNAZSE	7,924	$ 41.26	6.9%	94.9%	5
0	TUCSON WEST	TCSNAZWE	5,213	$ 41.39	0.3%	95.1%	5
1	SUPERIOR	SPRRAZMA	1,423	$ 42.60	2.9%	95.1%	5
1	HAYDEN	HYDNAZMA	899	$ 43.33	1.7%	95.1%	5
0	ELOY	ELOYAZ01	5,391	$ 43.90	1.3%	95.3%	5
1	WINSLOW	WNSLAZMA	4,877	$ 43.93	0.1%	95.5%	5
1	SOMERTON	SMTNAZMA	6,431	$ 44.55	1.4%	95.7%	5
1	WICKENBURG	WCBGAZMA	5,628	$ 45.17	1.4%	95.9%	5
1	BISBEE	BISBAZMA	5,348	$ 45.43	0.6%	96.1%	5
1	MIAMI	MIAMAZMA	2,094	$ 48.61	7.0%	96.2%	5
0	HIGLEY	HGLYAZMA	3,308	$ 48.62	0.0%	96.3%	5

0	SIERRA VISTA SOUTH	SRVSAZSO	7,056	$ 48.85	0.5%	96.5%	5
0	CHINO VALLEY	CHVYAZMA	6,355	$ 49.55	1.4%	96.7%	5
0	WHITE TANKS	WHTKAZMA	2,013	$ 50.04	1.0%	96.8%	5
1	ASHFORK	ASFKAZMA	528	$ 50.70	1.3%	96.8%	5
1	MT LEMMON	TCSNAZML	503	$ 51.67	1.9%	96.8%	5
0	BUCKEYE	BCKYAZMA	6,825	$ 55.45	7.3%	97.1%	5
0	BLACK CANYON	BLCNAZMA	1,664	$ 58.58	5.7%	97.1%	5
0	MARANA	MARNAZ02	7,366	$ 59.82	2.1%	97.4%	5
0	QUEEN CREEK	HGLYAZQC	4,063	$ 59.96	0.2%	97.5%	5
0	NEW RIVER	NWRVAZMA	4,024	$ 61.80	3.1%	97.7%	5
0	SIERRA VISTA NORTH	SRVSAZNO	2,151	$ 62.71	1.5%	97.7%	5
0	PINE	PINEAZMA	2,808	$ 62.95	0.4%	97.8%	5
1	BENSON	BNSNAZMA	4,757	$ 64.98	3.2%	98.0%	5
0	RIO VERDE	FTMDAZNO	1,625	$ 65.87	1.4%	98.1%	5
0	FLORENCE	FLRNAZMA	4,723	$ 67.90	3.1%	98.2%	5
1	WHITLOW	WHTLAZMA	740	$ 68.12	0.3%	98.2%	5
0	HUMBOLDT	HMBLAZMA	4,215	$ 70.21	3.1%	98.4%	5
0	VAIL SOUTH	VAILAZSO	2,162	$ 71.09	1.3%	98.5%	5
1	KEARNY	KRNYAZMA	1,369	$ 71.67	0.8%	98.5%	5
0	CAMP VERDE	CMVRAZMA	6,727	$ 78.78	9.9%	98.7%	5
0	ORACLE	ORCLAZMA	1,742	$ 79.03	0.3%	98.8%	5
1	WILLIAMS	WLMSAZMA	3,221	$ 81.69	3.4%	98.9%	5
1	ST DAVID	BNSNAZSD	1,004	$ 84.75	3.8%	99.0%	5
1	PIMA	PIMAAZMA	1,391	$ 85.66	1.1%	99.0%	5
1	CIRCLE CITY	CRCYAZMA	1,426	$ 87.37	2.0%	99.1%	5
1	MARICOPA	MRCPAZMA	1,853	$ 88.41	1.2%	99.1%	5
0	MARANA	MAYRAZMA	1,110	$ 93.34	5.6%	99.2%	5
1	WILLCOX	WLCXAZMA	4,024	$ 97.25	4.2%	99.3%	5
1	DUDLEYVILLE	DDVLAZNM	448	$ 99.85	2.7%	99.3%	5
1	STANFIELD	STFDAZMA	1,041	$ 104.07	4.2%	99.3%	5
0	TUBAC	TUBCAZMA	2,356	$ 115.44	10.9%	99.4%	5
1	ELGIN	PTGNAZEL	1,047	$ 120.65	4.5%	99.5%	5
1	TONTO CREEK	TNCKAZMA	1,078	$ 121.26	0.5%	99.5%	5
0	VAIL NORTH	VAILAZNO	1,174	$ 122.40	0.9%	99.5%	5
1	PALOMINAS	PLMNAZMA	629	$ 125.12	2.2%	99.6%	5
1	TOMBSTONE	TMBSAZMA	1,166	$ 129.40	3.4%	99.6%	5
1	JOSEPH CITY	JSCYAZMA	581	$ 139.72	8.0%	99.6%	5
1	GILA BEND	GLBNAZMA	1,057	$ 143.47	2.7%	99.7%	5
0	ARIZONA CITY	AZCYAZ03	1,261	$ 151.23	5.4%	99.7%	5
1	MAMMOTH	MMTHAZMA	860	$ 151.63	0.3%	99.7%	5
1	WELLTON	WLTNAZMA	2,210	$ 152.63	0.7%	99.8%	5
1	YARNELL	YRNLAZMA	1,470	$ 165.26	8.3%	99.9%	5
0	WINTERSBURG	WNBGAZ01	786	$ 212.79	28.8%	99.9%	5
1	PATAGONIA	PTGNAZMA	822	$ 247.26	16.2%	99.9%	5
1	GRAND CANYON	GRCNAZMA	2,621	$ 336.34	36.0%	100.0%	5
38	**134 Wire Centers**	**Total**	**2,905,325**	**$ 21.98**		**5 Zones**	
0	5 Wire Centers	**Zone 1**	347,846	$ 12.75		12.0%	

1	28 Wire Centers	**Zone 2**	1,686,769	$ 17.05	33.7%	58.1%	
0	11 Wire Centers	**Zone 3**	282,074	$ 21.98	28.9%	9.7%	
4	19 Wire Centers	**Zone 4**	274,114	$ 27.40	24.7%	9.4%	
33	71 Wire Centers	**Zone 5**	314,522	$ 53.94	96.9%	10.8%	
0							
0							
0							
0							
0							

After Sale of 38 Wire Centers							
	84 Wire Centers	**Total**	**2,743,175**	**$ 20.30**		**5 Zones**	
	5 Wire Centers	**Zone 1**	347,846	$ 12.75		12.7%	
	27 Wire Centers	**Zone 2**	1,655,303	$ 17.02	33.6%	60.3%	
	11 Wire Centers	**Zone 3**	282,074	$ 21.98	29.1%	10.3%	
	15 Wire Centers	**Zone 4**	225,424	$ 27.21	23.8%	8.2%	
	38 Wire Centers	**Zone 5**	232,528	$ 46.23	69.9%	8.5%	

CERTIFICATE OF SERVICE

I hereby certify that the original and 10 copies of the Direct Testimony of Douglas Denney on behalf of AT&T Communications of the Mountain States, Inc., regarding Docket No. T-00000A-00-0194, were sent via overnight delivery on this 21st day of April, 2000, to:

Arizona Corporation Commission
Docket Control - Utilities Division
1200 West Washington Street
Phoenix, AZ 85007

and a true and correct copy was sent via United States Mail, postage prepaid, on this 21st day of April, 2000, to:

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Phoenix, AZ 85007

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